

NV-S5E/B/A/EC NV-S500EN

SPECIFICATIONS

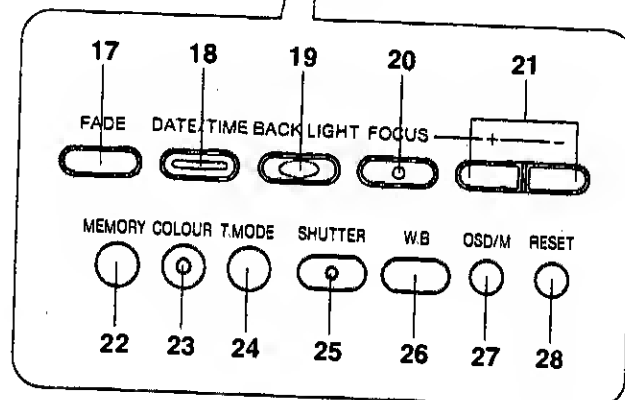
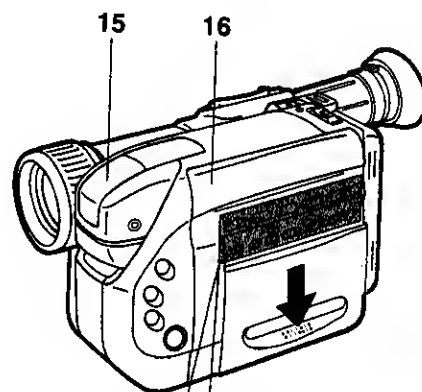
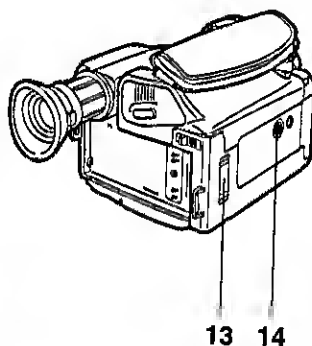
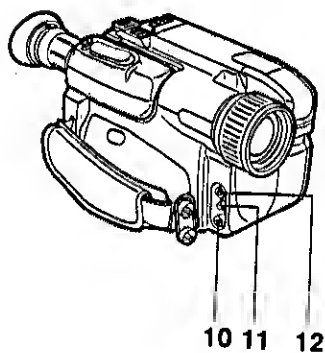
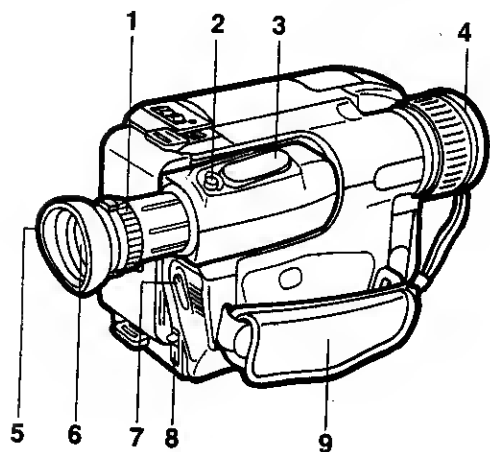
ITEM	SPECIFICATION	ITEM	SPECIFICATION
POWER	Source: DC 6.0V Consumption: Recording mode: 7.8W (Battery operation)	VIDEO	HEADS: 4 rotary heads, 1 flying erase head
VIDEO RECORDING SYSTEM	4 rotary heads, helical scanning system PAL		OUTPUT: PHONO CONNECTOR; 1.0 Vp-p 75Ω unbalanced
TAPE FORMAT	VHS-C Cassette Tape (Tape width 12.7mm)	AUDIO	HEAD: 1 Stationary head (Normal Audio)
			OUTPUT: PHONO CONNECTOR; -8dB, 600Ω unbalanced
TAPE SPEED	SP mode: 23.39mm/s LP mode: 11.7mm/s Record/Playback Time: SP mode: 45 min. with NV-EC45E LP mode: 90 min. with NV-EC45E	WEIGHT	Approx. 700g (without Battery Pack)
		DIMENSIONS	100(W) × 112(H) × 194(D) mm
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)	STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack 1 pc. Cassette Adaptor 1 pc. Shoulder Strap 1 pc. AV Output Cable 1 pc. DC Input Cable 1 pc. Battery for Cassette Adaptor Operation 1 pc. Battery for Clock Operation 1 pc. Phono/BNC Plug (NV-S5B) 1 pc. RF Adaptor (NV-S5B/A, NV-S500EN) 1 pc. Soft Case (NV-S5B)
	STANDARD ILLUMINATION: 1,400 lux		
	MINIMUM REQUIRED ILLUMINATION: 3 lux		
	LENS: 8 : 1 Power Zoom Lens with Digital AI Auto Focus, Auto Iria, Auto Focus System, F1.4 (8~48 mm), Filter Diameter 37 mm		
	IMAGE SENSOR: 1/3 inch CCD Image Sensor		
	VIEW FINDER: 2/3" Electronic View Finder		

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

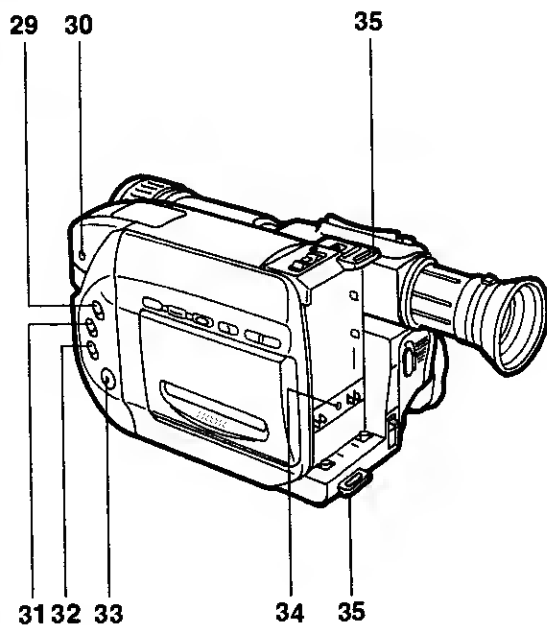
SECTION 1 GENERAL DESCRIPTIONS

1-1. CONTROLS AND COMPONENTS

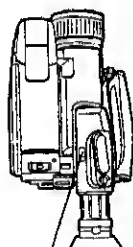


- 1 Eyepiece Corrector Control
- 2 Snapshot Rec Button [SNAPSHOT REC]
- 3 Zoom Buttons [W]/[T]
- 4 Lens Cap
- 5 Eyecup
- 6 Electronic Viewfinder
- 7 Recording Start/Stop Button
- 8 Battery Eject Lever [BATT. EJECT]
- 9 Grip Belt
- 10 Audio Output Socket
- 11 RF DC Output Socket
- 12 Video Output Socket
- 13 Button Battery Holder
- 14 Tripod Receptacle

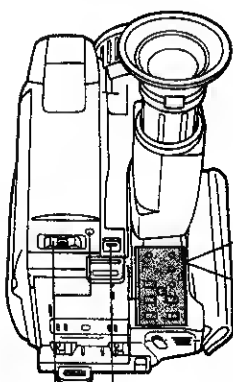
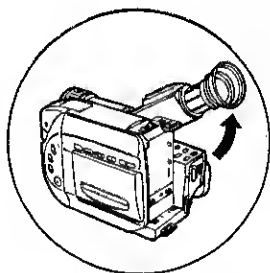
- 15 Microphone
- 16 Cassette Compartment
- 17 Fade Button [FADE]
- 18 Date/Time Selector Button [DATE/TIME]
- 19 Back Light Button [BACKLIGHT]
- 20 Focus Button [FOCUS]
- 21 Focus +/- Buttons [+/-]
- 22 Memory Button [MEMORY]
- 23 Title Colour Selector Button [COLOUR]
- 24 Title Mode Selector Button [T. MODE]
- 25 High Speed Shutter Button [SHUTTER]
- 26 White Balance Button [W.B]
- 27 OSD/M Button [OSD/M]
- 28 Reset Button [RESET]



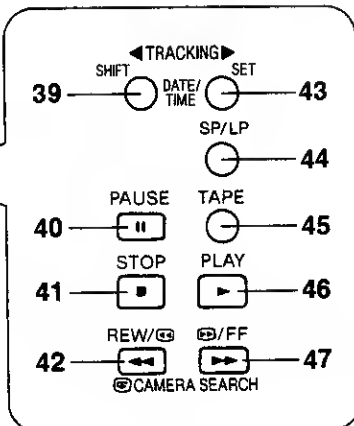
- 29 Title Button [TITLE]
- 30 External Microphone Socket (mono) [MIC]
- 31 Digital Effect Button [DIGITAL EFFECT]
- 32 Digital Zoom Button [DIGITAL ZOOM]
- 33 Image Stabilizer Button [IMAGE STABILIZER]
- 34 DC Input Socket
- 35 Shoulder Strap Holder



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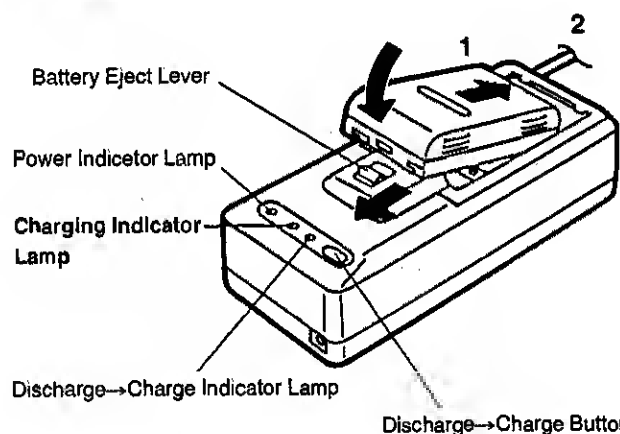
37 38



- 36 EVF Lock Switch [RELEASE/LOCK]
- 37 Operation Switch and Operation Indicator [OPERATE]
- 38 Cassette Eject Button [EJECT]
- 39 Tracking/Date/Time Shift Button [TRACKING/SHIFT]
- 40 Pause Button [PAUSE]
- 41 Stop Button [STOP]
- 42 Rewind/Review Button [REW/⏮]
- 43 Tracking/Date/Time Set Button [TRACKING/SET]
- 44 Recording Speed Selector Button [SP/LP]
- 45 Remaining Tape Time Button [TAPE]
- 46 Play Button [PLAY]
- 47 Fast Forward/Cue Button [⏭/FF]

1-2. BATTERY PACK

Charging



- 1 Attach the Battery Pack.
- 2 Connect the AC Adaptor to the Mains.

•Charging Indicator Lamp

This lamp is lit while the charging is taking place, and it goes out when the charging is finished.

Note:

- The charging takes about 60 minutes.
- With a fully charged Battery Pack, the Movie Camera can be used continuously for approx. 45 minutes (Image Stabilizer function on).
- With the Battery Packs VW-VBS2E (optional) and VW-VBR2E (optional), the charging as well as the possible recording time is twice as long as for the standard supplied Battery Pack.

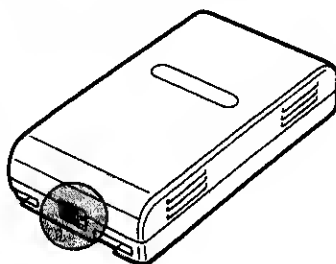
■ When the charging is completed, slide the Battery Eject Lever in the direction of the arrow and remove the Battery Pack.

■ Discharge→Charge Function

If a Battery Pack is recharged repeatedly in not completely discharged condition, the so-called "memory effect" will occur, and the operation time of the recharged Battery Pack will gradually become shorter. Therefore, it is recommended to regenerate the Battery Pack after approx. every fifth recharging using the Discharge→Charge Function.

- 1 Attach the Battery Pack to the AC Adaptor.
- 2 Connect the AC Adaptor to the mains.
- 3 Press the Discharge→Charge Button on the AC Adaptor for more than 1 second to completely discharge the Battery Pack.
 - The Discharge→Charge Indicator Lamp will light up. When the discharging is finished, the Charging Indicator Lamp will light up instead, and the charging will start.

Charging Confirmation Marker on the Battery Pack



Charging Confirmation Marker

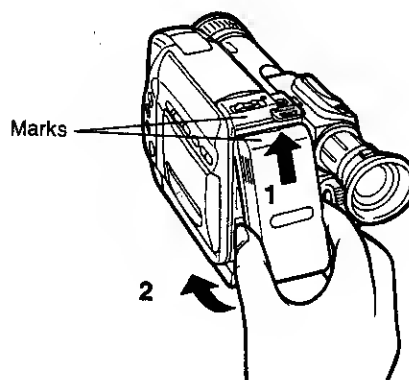
This marker makes it convenient to distinguish between charged and discharged Battery Packs. For example, slide the knob so that the dot is visible to mark a charged Battery Pack, and slide it so that the dot is not visible for a partially or fully discharged Battery Pack.

The function of the Battery Pack is based on a chemical reaction. Use it according to its characteristics.

- Charge the Battery Pack within a temperature range of 10°C–35°C. If charged at lower temperatures, the chemical reaction cannot take place optimally, causing the performance of the Battery Pack to deteriorate. At higher temperatures, the Battery Pack cannot be charged completely.
- Store the Battery Pack in cool and dry place. If it is exposed to high temperatures for a long time, the self-discharging process will be accelerated and the operation time will be shortened.
- Charge the Battery Pack before using it because self-discharging may occur if it is left unused for a long period of time after charging.
- When not using the Battery Pack, remove it from the Movie Camera or the AC Adaptor.

Attaching the Battery Pack

- 1 Align the mark at the top of the Battery Pack with that on the Movie Camera and insert the Battery Pack with its upper part first.
- 2 Insert the Battery Pack until it locks with a click.

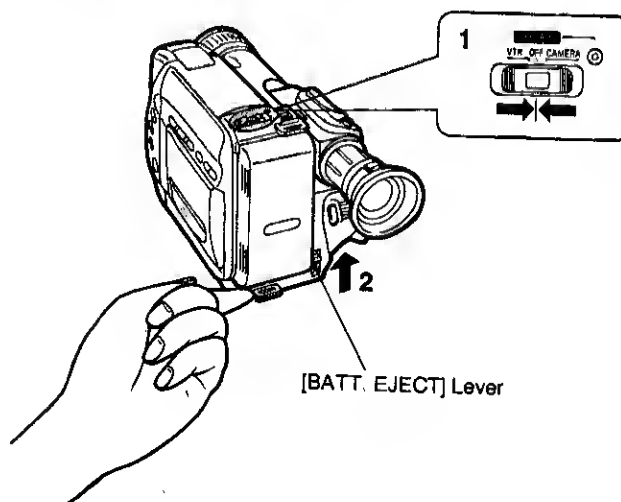


Removing the Battery Pack

- 1 To turn off the Movie Camera, press the [OPERATE] Switch and slide it to "OFF".
- 2 About 10 seconds later: Pull off the Battery Pack while pushing up the [BATT. EJECT] Lever.

Caution:

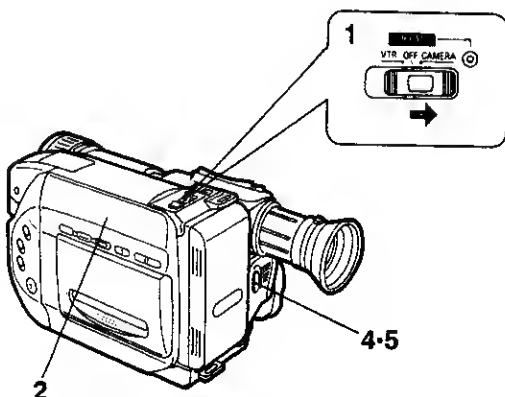
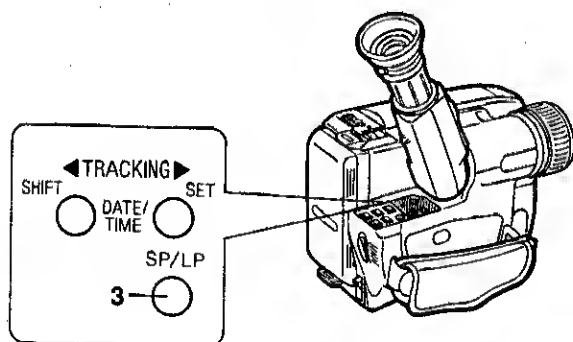
- If the Battery Pack is removed during recording or playback, the tape remains wound around the video head cylinder and could become damaged.



1-3. CAMERA RECORDING

To Start Recording

- Remove the Lens Cap from the Lens and attach it to the Grip Belt.
- Extend the EVF to its fully extended position.
- 1 Press the [OPERATE] Switch and slide it to "CAMERA".
- 2 Insert a video cassette with intact erasure prevention tab.
 - A few seconds after closing the Cassette Compartment Cover, the Movie Camera will be in the recording pause mode.
- 3 Select the recording speed with the [SP/LP] Button. The selected speed is indicated in the EVF.
 - SP: Normal tape speed (maximum recording time as indicated on the cassette; optimum picture quality)
 - LP: Slow tape speed (max. recording time is double the figure indicated on the cassette; slightly inferior picture quality)
- 4 Press the Start/Stop Button.
 - The recording starts.
- 5 Press the Start/Stop Button again to stop the recording temporarily. (Recording pause mode)
 - To record the next scene(s), repeat steps 4 and 5. The new scene will be joined to the previous one with smooth transition.
 - If the Movie Camera is left in the recording pause mode for more than 6 minutes, the recording pause mode will be canceled and the EVF will be turned off (recording lock mode). To resume shooting from this condition, set the [OPERATE] Switch to "OFF" and then to "CAMERA" again. If the Movie Camera is left in the recording lock mode for more than 48 hours, it will automatically turn itself off completely.



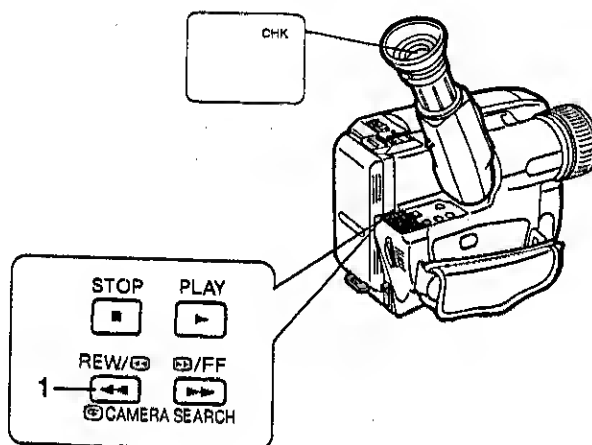
To Stop Recording

- 1 Press the Start/Stop Button to finish recording and put the Movie Camera in the recording pause mode.
- 2 To turn the Movie Camera off, press the [OPERATE] Switch and slide it to "OFF".

To Check the End of a Just Recorded Scene

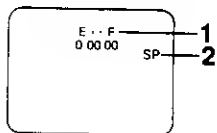
After finishing the shooting of a scene, and with the Movie Camera still in the recording pause mode ("PAUSE" is indicated in the EVF):

- 1 Press the [REW/CHK] Button.
 - The "CHK" Indication in the EVF will light up, and the last 2-3 seconds of the last recorded scene will be played back in the EVF. After that, the Movie Camera is again in the recording pause mode.

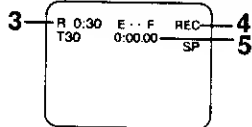


1-4. IMPORTANT INDICATIONS IN THE EVF

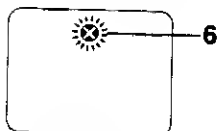
When the Movie Camera is turned on.



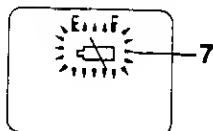
When shooting is started.



When the heads are dirty.



When the Battery Pack is exhausted.



1 Remaining Battery Power indication

E-F The "—" Indications begin to disappear from the right to left as the power of the Battery Pack weakens.

- When attaching the Battery Pack to the Movie Camera, the "E-F" Indication will initially be displayed for approx. one minute and then the actual remaining battery power will be displayed.

2 Recording Speed Indication

SP SP mode
LP LP mode

3 Remaining Tape Time Indication

4 Recording Indication

5 Tape Counter Indication

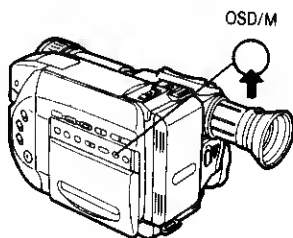
The figures in this indication change according to the elapsed tape time.

6 Video Head Clogging indication (see page 53)

7 Battery Power Warning Indication

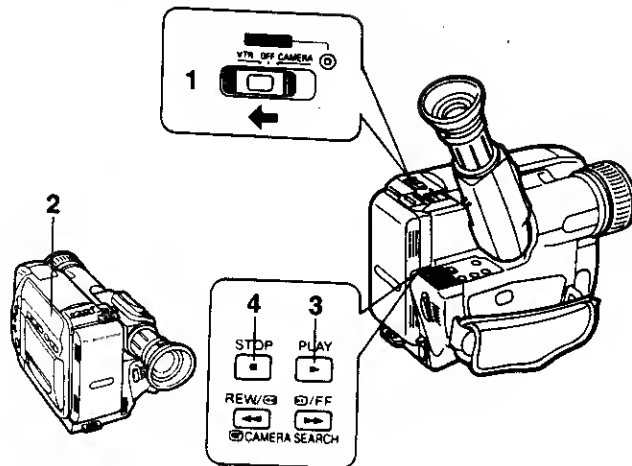
When only one bar "—" in the Battery Power Indication remains lit, the Battery Power Warning Indication "⚡" starts to flash. When the last bar has disappeared, the flashing becomes faster. There is now very little battery power left, and the Movie Camera will automatically turn itself off in a few minutes. To continue shooting or playback, replace the Battery Pack with a fully recharged one.

To Cancel the Indications in the EVF



- Press the [OSD/M] Button two times.
- Press this button once more to make the indications appear again.
- The Tape Running, Date, Time, and Title function Indications cannot be canceled with the [OSD/M] Button.

1-5. PLAYBACK



The recorded tape can be played back on the EVF or on a connected TV set. For the connections, see page 47.

- 1 Press the [OPERATE] Switch and slide it to "VTR".
- 2 Insert the recorded cassette.
- 3 Press the [PLAY] Button.
- 4 Press the [STOP] Button to finish playback.

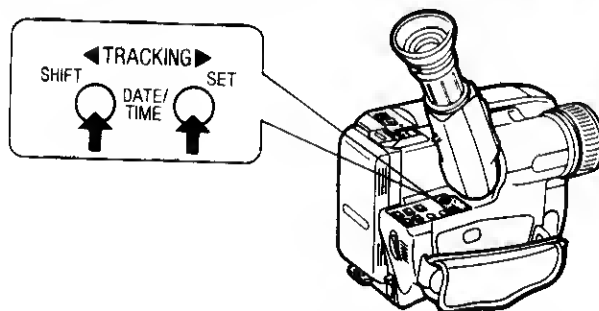
Note:

- The tape will be rewound automatically when it reached its end.

Tracking Adjustment

When the picture is distorted by noise bars during playback, the tracking needs to be adjusted.

- 1 Press both the [◀ TRACKING] and [TRACKING ▶] Buttons simultaneously.
 - 2 Eliminate the noise bars by adjusting with the Tracking with the [◀ TRACKING] or [TRACKING ▶] Button.
- When playing back a tape which has been recorded on another camera, it may not be possible to completely eliminate these noise bars.



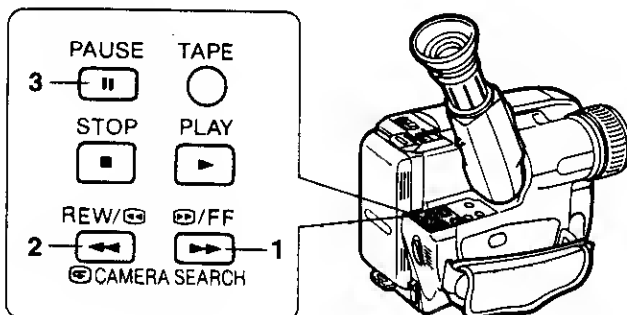
Cue, Review and Still Playback

During normal playback:

- 1 For Cue playback: Keep the [◀/FF] Button pressed during playback.
- 2 For Review playback: Keep the [REW/▶] Button pressed during playback.
- 3 For Still playback: Press the [PAUSE] Button during playback. To resume the normal playback, press this button again.

Note:

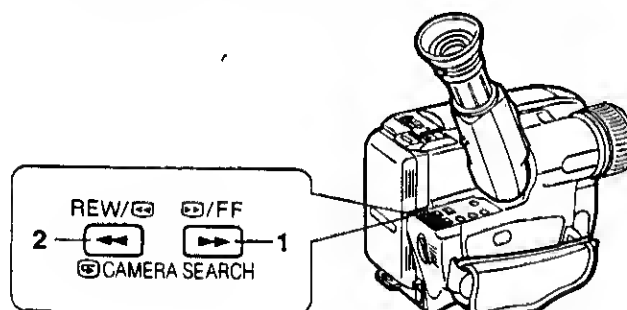
- The sound will be played back only during normal playback (if connected to a TV set).
- In the Cue, Review and Still playback modes, horizontal noise bars appear in the picture and the picture may become black and white or distorted. This is not an indication of a malfunction.
- Still playback: If the Movie Camera is left in this mode for about 6 minutes, it will switch to the stop mode, to protect the tape and video heads.



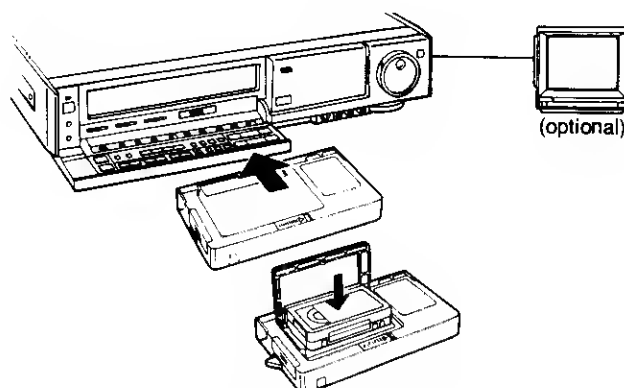
Fast Forwarding or Rewinding the Tape

With the Movie Camera in the stop mode:

- 1 Press the [⏭/FF] Button to wind the tape forward at high speed.
• The tape will be rewound automatically when it reaches its end.
- 2 Press the [REW/⏮] Button to rewind the tape at high speed.
• The tape will stop automatically when it reaches its beginning.



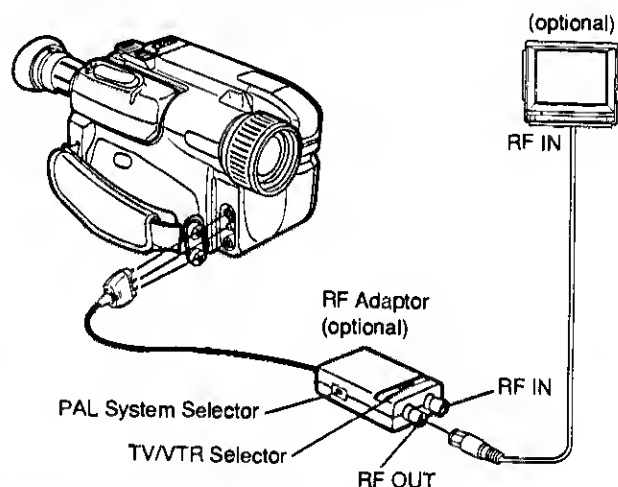
Playback on a Table Type VTR



Use the Cassette Adaptor. (See page 51 for details.)

TV Set without AV Input Socket

Before connecting the RF Adaptor to the Movie Camera, turn the Movie Camera off with the [OPERATE] Switch.



TV Set

Tune to the video playback channel (UHF channel 36).

TV/VTR Selector on the RF Adaptor

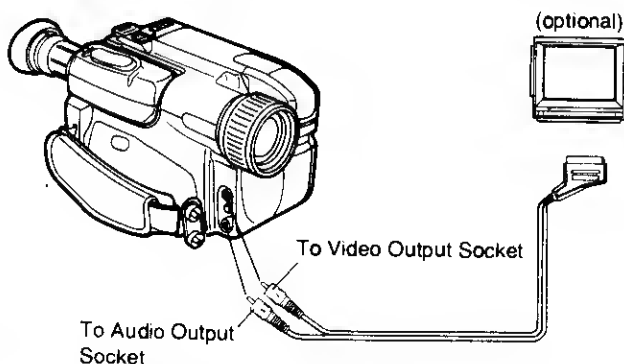
- VTR: For playing back a cassette
- TV: For watching TV

PAL System Selector

- G: For Continental Europe
- I: For U.K.

1-6. PLAYBACK VIA TV SET (CONNECTIONS)

TV Set with AV Input Socket



1-7. STANDARD ACCESSORIES

- AC Adaptor
- Battery Pack
- Cassette Adaptor
- RF Adaptor
- Shoulder Strap
- Audio/Video Cable
- DC Input Cable
- Battery for Cassette Adaptor Operation
- Battery for Clock Operation